



**ENVIRONMENTAL PROTECTION AGENCY**

**40 CFR Part 52**

**[EPA-R05-OAR-2015-0315; FRL-9942-73-Region 5]**

**Air Plan Approval; Indiana; Removal of Stage II Gasoline Vapor**

**Recovery Requirements**

**AGENCY:** Environmental Protection Agency (EPA).

**ACTION:** Proposed rule.

**SUMMARY:** The Environmental Protection Agency (EPA) is proposing to approve, as a revision to the State Implementation Plan (SIP), a submittal by the Indiana Department of Environmental Management (IDEM) on April 27, 2015 and September 10, 2015. The submittal concerns the state's Stage II vapor recovery (Stage II) program for Clark and Floyd counties in southern Indiana as part of the Louisville, Kentucky ozone nonattainment area, and Lake and Porter counties in northwest Indiana as part of the Chicago ozone nonattainment area. The submittal removes Stage II requirements from both nonattainment areas, as a component of the Indiana ozone SIP. The submittal also includes a demonstration under the Clean Air Act (CAA) that addresses emission impacts associated with the removal of the Stage II program.

**DATES:** Comments must be received on or before **[insert date 30 days after publication in the Federal Register]**.

**ADDRESSES:** Submit your comments, identified by Docket ID No. EPA-R05-OAR-2015-0315 at <http://www.regulations.gov> or via email to [blakley.pamela@epa.gov](mailto:blakley.pamela@epa.gov). For comments submitted at Regulations.gov, follow the online instructions for submitting comments. Once submitted, comments cannot be edited or removed from Regulations.gov. For either manner of submission, EPA may publish any comment received to its public docket. Do not submit electronically any information you consider to be Confidential Business Information (CBI) or other information whose disclosure is restricted by statute. Multimedia submissions (audio, video, etc.) must be accompanied by a written comment. The written comment is considered the official comment and should include discussion of all points you wish to make. EPA will generally not consider comments or comment contents located outside of the primary submission (i.e. on the web, cloud, or other file sharing system). For additional submission methods, please contact the person identified in the "For Further Information Contact" section. For the full EPA public comment policy, information about CBI or multimedia submissions, and general guidance on making effective comments, please visit <http://www2.epa.gov/dockets/commenting-epa-dockets>.

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**SUPPLEMENTARY INFORMATION:** Throughout this document whenever "we," "us," or "our" is used, we mean EPA. This supplementary information section is arranged as follows:

- I. Background.
- II. What Changes Have Been Made to the Indiana Stage II Vapor Recovery Program?
- III. What Is EPA's Analysis of the State's Submittal?
- IV. What Action Is EPA Proposing to Take?
- V. Incorporation by Reference.
- VI. Statutory and Executive Order Reviews.

**I. Background.**

Stage II and onboard refueling vapor recovery (ORVR) are two types of emission control systems that capture fuel vapors from vehicle gas tanks during refueling. Stage II systems are specifically installed at gasoline dispensing facilities (GDF) and capture the refueling fuel vapors at the gasoline pump nozzle. The system carries the vapors back to the underground storage tank at the GDF to prevent the vapors from escaping to the atmosphere. ORVR systems are carbon canisters installed directly on automobiles to capture the fuel vapors evacuated from the gasoline tank before they reach the nozzle. The fuel vapors captured in the carbon canisters are then combusted in

the engine when the automobile is in operation.

Both Stage II and ORVR were required by the 1990 Amendments to the CAA under sections 182(b)(3) and 202(a)(6), respectively. In some areas, Stage II has been in place for over 25 years. It was not, however, widely implemented by the states until the early to mid-1990s as a result of the CAA requirements for "moderate," "serious," "severe," and "extreme" ozone nonattainment areas, classified under section 181 of the CAA, and for states in the Northeast Ozone Transport Region (OTR) under section 184(b)(2) of the CAA.

Under section 202(a)(6) of the CAA, Congress required EPA to promulgate regulations for ORVR for light-duty vehicles (passenger cars). EPA adopted these requirements in 1994, at which point moderate ozone nonattainment areas were no longer subject to the section 182(b)(3) Stage II requirement. See 59 FR 16262 (April 6, 1994). However, some moderate areas retained Stage II requirements to provide a control method to comply with rate-of-progress emission reduction targets. ORVR equipment has been phased in for new passenger vehicles beginning with model year 1998, and starting in 2001 for light-duty trucks and most heavy-duty gasoline-powered vehicles. ORVR equipment has been installed on nearly all new gasoline-powered light-duty vehicles, light-duty trucks and heavy-duty vehicles since 2006. During the phase-in of ORVR controls, Stage II has provided

volatile organic compound (VOC) reductions in ozone nonattainment areas and certain attainment areas of the OTR. Under section 202(a)(6) of the CAA, Congress recognized that ORVR and Stage II could eventually become largely redundant technologies, and provided authority to the EPA to allow states to remove Stage II from their SIPs after EPA finds that ORVR is in widespread use. On May 16, 2012, EPA determined that ORVR was in widespread nationwide use for control of gasoline emissions during refueling of vehicles at GDFs (77 FR 28772).

In 2012, more than 75 percent of gasoline refueling nationwide occurred with ORVR-equipped vehicles, so Stage II programs have become largely redundant control systems and Stage II systems achieve an ever declining emissions benefit as more ORVR-equipped vehicles continue to enter the on-road motor vehicle fleet<sup>1</sup>.

On that date, EPA also exercised its authority under section 202(a)(6) of the CAA to waive certain Federal statutory requirements for Stage II at GDFs. This decision exempted all new ozone nonattainment areas classified serious or above from the requirement to adopt Stage II control programs. Similarly,

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<sup>1</sup> In areas where certain types of vacuum-assist Stage II systems are used, the differences in operational design characteristics between ORVR and some configurations of these Stage II systems result in the reduction of overall control system efficiency compared to what could have been achieved relative to the individual control efficiencies of either ORVR or Stage II emissions from the vehicle fuel tank.

any state currently implementing Stage II programs was authorized to submit SIP revisions that, once approved by EPA, would allow for the phase-out of Stage II control systems.

To assist states in the development of SIP revisions to remove Stage II requirements from their SIPs, EPA issued its "Guidance on Removing Stage II Gasoline Vapor Control Programs from State Implementation Plans and Assessing Comparable Measures" (EPA-457/B-12-001) on August 7, 2012. In that document, EPA provided both technical and policy recommendations to states and local areas on how to develop and submit and approvable SIP revision seeking to phase out an existing Stage II program.

## **II. What Changes Have Been Made to the Indiana Stage II Vapor Recovery Program?**

Indiana originally submitted a SIP revision request to EPA on February 25, 1994, to satisfy the requirements of section 182(b)(3) of the CAA. The submission applied to Clark and Floyd counties Indiana as part of the Louisville, Kentucky ozone nonattainment area and Lake and Porter counties Indian as part of the Chicago ozone nonattainment area. EPA fully approved Indiana's Stage II program on April 28, 1994 (59 FR 10111), including the program's legal authority and administrative requirements found in Section 8-4-6 of Title 326 of the Indiana Administrative Code (326 IAC).

In January 2013, IDEM issued a Nonrule Policy Document, Air-036 (NPD), addressing EPA's May 16, 2012 determination. In the NPD, IDEM stated that it would not enforce the requirements for Stage II at new and modified GDFs in Clark, Floyd, Lake and Porter counties. At the same time Indiana also initiated a rulemaking process to revise its SIP to remove Stage II requirements for all facilities in Clark, Floyd, Lake and Porter counties. As part of that process, Indiana completed a state-specific analysis following EPA's recommended methodology. In that analysis, Indiana concluded that, during calendar year 2016, ORVR would be in widespread use in Indiana and that there would no remaining emissions reduction benefit from Stage II requirements beyond the benefits from ORVR.

On April 27, 2015 and September 10, 2015, IDEM submitted rules as SIP revision requests of amendments to 326 IAC 8-4-6 and 326 IAC 8-4-1. These amendments would remove Stage II requirements from the Indiana ozone SIP and allow GDFs currently implementing Stage II in the four program counties to decommission their systems. To support the removal of the Stage II requirements, the revised rules included copies of 326 IAC 8-4-1 and 326 IAC 8-4-6, as published in the Indiana Register on March 4, 2015; a summary of state-specific calculations based on EPA guidance used to calculate program benefits and demonstrate widespread use of ORVR in Indiana; and a section 110(1)

demonstration that includes offset emission documentation that addresses the 2013-2015 period, when Stage II requirements were waived in Indiana but widespread use of ORVR had not yet occurred.

### **III. What Is EPA's Analysis of the State's Submittal?**

Revisions to SIP-approved control measures must meet the requirements of section 110(l) of the CAA in order to be approved by EPA. Section 110(l) states:

"The Administrator shall not approve a revision of a plan if the revision would interfere with any applicable requirement concerning attainment and reasonable further progress (as defined in section 171), or any other applicable requirement of this Act."

EPA evaluates each section 110(l) non-interference demonstration on a case-by-case basis considering the circumstances of each SIP revision. EPA interprets section 110(l) to apply to all requirements of the CAA and to all areas of the country, whether attainment, nonattainment, unclassifiable, or maintenance for one or more of the six criteria pollutants. EPA also interprets section 110(l) to require a demonstration addressing all criteria pollutants whose emissions and/or ambient concentrations may change as a result of the SIP revision. The degree of analysis focused on any particular national ambient air quality standards (NAAQS) in a



non-interference demonstration varies depending on the nature of the emissions associated with the proposed SIP revision.

In the absence of an attainment demonstration, to demonstrate no interference with any applicable NAAQS or requirement of the CAA under section 110(1), EPA believes it is appropriate to allow states to substitute equivalent emissions reductions to compensate for any change to a SIP-approved program, as long as actual emissions in the air are not increased. "Equivalent" emissions reductions mean reductions which are equal to or greater than those reductions achieved by the control measure approved in the SIP. To show that compensating emissions reductions are equivalent, modeling or adequate justification must be provided. The compensating, equivalent reductions must represent actual, new emissions reductions achieved in a contemporaneous time frame to the change of the existing SIP control measure, in order to preserve the status quo level of emissions in the air. In addition to being contemporaneous, the equivalent emissions reductions must also be permanent, enforceable, quantifiable, and surplus to be approved into the SIP.

The implementation of the Stage II program in Indiana has resulted in reductions of VOC emissions. VOCs contribute to the formation of ground-level ozone. Thus the potential increase in VOC needs to be offset with equivalent (or greater) emissions

reductions from another control measure in order to demonstrate non-interference with the 8-hour ozone NAAQS. The Indiana Stage II SIP revision includes a 110(l) demonstration for both areas that uses equivalent emissions reductions to compensate for emission reduction losses between 2013 and 2015 resulting from the removal of Stage II systems at a number of GDFs before ORVR is in widespread use as allowed by Indiana's NPD. IDEM has calculated that by 2016, ORVR will be in widespread use in both areas and the absence of the Indiana Stage II program after 2016 would not result in a net VOC emissions increase compared to the continued utilization of this emissions control technology. The emission reduction losses resulting from removing Stage II before 2016 are transitional and relatively small since ORVR-equipped vehicles will continue to phase into the fleet over the coming years. IDEM's calculation indicates a maximum potential loss of 0.02317 tons per summer day (tpsd) in Lake and Porter counties and 0.00408 tpsd in Clark and Floyd counties from 2013 through 2015.

For Lake and Porter Counties, IDEM is proposing the use of VOC emission reductions associated with the shutdown of the State Line Energy Generating Plant (State Line Energy) formerly located in Lake County, Indiana to offset the 0.02317 tpsd increase in those counties. State Line ceased operations in March 31, 2012 and its operating permit has been revoked. The

expiration and revocation of this source's permit enables the state to use the VOC emission credits associated with this facility for other purposes under the SIP and makes such credits permanent and enforceable. Using the last three full years of operations (2009-2011) State Line Energy averaged 0.215 tpsd of VOC of emissions offsets. Table 1 shows the increase of emissions associated with the removal of Stage II systems at facilities in Lake and Porter counties, as well as offset emissions associated with State Line Energy. In the table, the number of facilities removing Stage II equipment for 2013 represents the actual number of facilities that sought an exemption from implementing the Stage II requirements. For 2014 and 2015, the number of facilities removing Stage II equipment is a conservative estimate<sup>2</sup>.

Table 1 - Lake and Porter Counties Offset Analysis

Year	Number of Facilities Removing Stage II	Emissions Factor VOC Tons/Facility/Avg. Summer day	Emissions Increase VOC Tons/Avg. Summer Day	State Line Energy Offsets VOC Tons/Avg. Summer Day (Avg. of 2009-2011)	Offset Greater Than Increase ?
2013	6	0.000944006	0.00566403	0.215	Yes

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<sup>2</sup> The actual number of facilities expected to remove Stage II equipment during this timeframe believed to be less, thus resulting in lower emissions increase.

201 4	12	0.000654335	0.00785201 4	0.215	Yes
201 5	24	0.000402349	0.00965636 5	0.215	Yes

As illustrated in Table 1, and documented in Indiana's SIP revision, for Lake and Porter counties, for each year prior to the widespread use of ORVR in Indiana (2016), the VOC emissions increase associated with the removal of Stage II systems is more than offset by the VOC emission reductions attributed to the permanent closure of the State Line Energy facility.

For Clark and Floyd counties, IDEM is proposing the use of offsets generated by the Architectural and Industrial Maintenance (AIM) coatings rule adopted by Indiana at 326 IAC 8-14. Indiana's AIM coatings rule goes above and beyond the Federal AIM rule by adopting a rule that is similar to the Ozone Transport Commission (OTC) model rule. According to a 2006 Lake Michigan Air Directors Consortium (LADCO) white paper, the OTC model rule provides a 31% to 48.4% (depending on the AIM coatings category) reduction in VOC emissions compared to uncontrolled 2002 base case emissions while the Federal AIM rule alone only provides a 20% reduction compared to base case.

The Indiana AIM rule was approved into the SIP on August 30, 2012 (77 FR 52606). Indiana was not required to adopt an

AIM coatings rule but did so as a multi-state effort to help reduce ozone levels at the regional level. Indiana did not adopt the AIM rule to comply with any Indiana SIP planning requirements and has not taken credit for it in air quality plans, nor has it been included in maintenance year horizons or rate of further progress (RFP) inventories. Therefore, these SIP approved AIM limits can be used as offsets for other purposes, such as this SIP revision. Offsets of 0.234 tpsd of VOC are available based on calculations derived using the 2011 National Emissions Inventory data. Table 2 shows the increase of VOC emission associated with the removal of Stage II systems at facilities in Clark and Floyd between 2013 and 2015, as well as offset emissions associated with AIM coatings. In the table, the number of facilities removing Stage II equipment for 2013 represents the actual number of facilities that have sought an exemption from implementing the Stage II requirements. For 2014 and 2015, the number of facilities removing Stage II equipment is a conservative estimate.

Table 2 - Clark and Floyd Counties Offset Analysis

Year	Number of Facilities Removing Stage II	Emissions Factor VOC Tons/Facility/Avg. Summer day	Emissions Increase VOC Tons/Avg. Summer Day	AIM Coatings Offsets VOC Tons/Avg. Summer Day (Avg. of 2009-2011)	Offset Greater Than Increase ?
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201 3	0	0.000659923	0.0	0.292	Yes
201 4	4	0.000457424	0.00182969 5	0.292	Yes
201 5	8	0.000281269	0.00225014 9	0.292	Yes

As illustrated in Table 2, and documented in Indiana's SIP revision, for Clark and Floyd counties, for each year prior to the widespread use of ORVR in Indiana (2016), the VOC emissions increase associated with the removal of Stage II systems is more than offset by the VOC emission reductions attributed to reductions in AIM coatings emissions. For both the Clark and Floyd counties and Lake and Porter counties analyses, Indiana is requesting to use only the portion of the emissions offsets necessary to offset the emissions increase due to the removal of Stage II systems before Indiana's 2016 widespread use timeframe. Indiana retains the right to utilize any remaining emissions offsets in the future.

Based on the use of permanent, enforceable, contemporaneous, surplus emissions reductions achieved through the shutdown of the previously permitted State Line Energy facility in Lake and Porter counties and the offsets from VOC reductions in AIM coatings emissions in Clark and Floyd

counties, EPA believes that the removal of the Indiana Stage II program does not interfere with southeast Indiana's ability to demonstrate compliance with the 8-hour ozone NAAQS.

EPA also examined whether the removal of Stage II program requirements in both areas will interfere with attainment of other air quality standards. Lake and Porter counties are designated attainment for all standards other than ozone, including sulfur dioxide and nitrogen dioxide. Clark and Floyd counties are designated attainment for all standards other than ozone and particulate matter<sup>3</sup>. EPA has no reason to believe that the removal of the Stage II program in Indiana will cause the areas to become nonattainment for any of these pollutants. In addition, EPA believes that removing the Stage II program requirements in Indiana will not interfere with the areas' ability to meet any other CAA requirement.

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<sup>3</sup> Clark and Floyd counties are currently designated nonattainment for the 1997 Annual fine particulate matter (PM<sub>2.5</sub>) standard. While VOC is one of the precursors for particulate matter (NAAQS) formation, studies have indicated that in the southeast which includes the Louisville, KY ozone nonattainment area, emissions of direct PM<sub>2.5</sub> and the precursor sulfur oxides are more significant to ambient summertime PM<sub>2.5</sub> concentrations than emissions of nitrogen oxides and anthropogenic VOC. See. E.g., Journal of Environmental Engineering-Quantifying the sources of ozone, fine particulate matter, and regional haze in the Southeastern United States (June 24, 2009), available at: <http://www.journals.elsevier.com/journal-of-environmental-management>. Currently, Clark and Floyd counties are not designated nonattainment for any of the other criteria pollutants (i.e. sulfur dioxide, nitrogen dioxide, lead or carbon monoxide) and those pollutants are not affected by the removal of Stage II requirements.

Based on the above discussion and the state's section 110(l) demonstration, EPA believes that removal of the Stage II program will not interfere with attainment or maintenance of any of the NAAQS in both the Chicago and Louisville, Kentucky ozone nonattainment areas and would not interfere with any other applicable requirement of the CAA, and thus, are approvable under CAA section 110(l).

#### **IV. What Action Is EPA Proposing to Take?**

EPA is proposing to approve, as a revision to the Indiana ozone SIP, regulations submitted by IDEM on April 27, 2015 and September 10, 2015. EPA finds that the revisions will not interfere with any applicable CAA requirement.

#### **V. Incorporation by Reference.**

In this rulemaking, EPA is proposing to include in a final EPA rule regulatory text that includes incorporation by reference. In accordance with requirements of 1 CFR 51.5, EPA is proposing to incorporate by reference Indiana rules 326 IAC 8-4-1 "Applicability" and 326 IAC 8-4-6 "Gasoline dispensing facilities", effective March 5, 2015. EPA has made, and will continue to make, these documents generally available through [www.regulations.gov](http://www.regulations.gov) and/or at the appropriate EPA office (see the ADDRESSES section of this preamble for more information).

#### **VI. Statutory and Executive Order Reviews.**

Under the CAA, the Administrator is required to approve a SIP



submission that complies with the provisions of the CAA and applicable Federal regulations. 42 U.S.C. 7410(k); 40 CFR 52.02(a). Thus, in reviewing SIP submissions, EPA's role is to approve state choices, provided that they meet the criteria of the CAA. Accordingly, this action merely approves state law as meeting Federal requirements and does not impose additional requirements beyond those imposed by state law. For that reason, this action:

- Is not a significant regulatory action subject to review by the Office of Management and Budget under Executive Orders 12866 (58 FR 51735, October 4, 1993) and 13563 (76 FR 3821, January 21, 2011);
- Does not impose an information collection burden under the provisions of the Paperwork Reduction Act (44 U.S.C. 3501 *et seq.*);
- Is certified as not having a significant economic impact on a substantial number of small entities under the Regulatory Flexibility Act (5 U.S.C. 601 *et seq.*);
- Does not contain any unfunded mandate or significantly or uniquely affect small governments, as described in the Unfunded Mandates Reform Act of 1995 (Public Law 104-4);
- Does not have Federalism implications as specified in Executive Order 13132 (64 FR 43255, August 10, 1999);

- Is not an economically significant regulatory action based on health or safety risks subject to Executive Order 13045 (62 FR 19885, April 23, 1997);
- Is not a significant regulatory action subject to Executive Order 13211 (66 FR 28355, May 22, 2001);
- Is not subject to requirements of Section 12(d) of the National Technology Transfer and Advancement Act of 1995 (15 U.S.C. 272 note) because application of those requirements would be inconsistent with the CAA; and
- Does not provide EPA with the discretionary authority to address, as appropriate, disproportionate human health or environmental effects, using practicable and legally permissible methods, under Executive Order 12898 (59 FR 7629, February 16, 1994).

In addition, the SIP is not approved to apply on any Indian reservation land or in any other area where EPA or an Indian tribe has demonstrated that a tribe has jurisdiction. In those areas of Indian country, the rule does not have tribal implications and will not impose substantial direct costs on tribal governments or preempt tribal law as specified by Executive Order 13175 (65 FR 67249, November 9, 2000).

**List of Subjects in 40 CFR Part 52**

Environmental protection, Air pollution control,  
Incorporation by reference, Intergovernmental relations,  
Nitrogen oxides, Ozone, Volatile organic compounds.

Dated: February 11, 2016.

Robert A. Kaplan,  
Acting Regional Administrator, Region 5.

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